

Lab 11 - Private Line Automatic Ringdown

CCNA Voice Lab 11

Private Line Automatic Ringdown

Lab Objective:

The objective of this lab exercise is for you to learn and understand how to implement Private Line Automatic Ringdown (PLAR) in Cisco IOS voice gateways

Topic Description:

PLAR is a feature that is used to automatically connect an endpoint to a predetermined destination number as soon as the line goes off-hook. PLAR can be used on FXO, FXS, and E&M voice ports

Lab Difficulty:

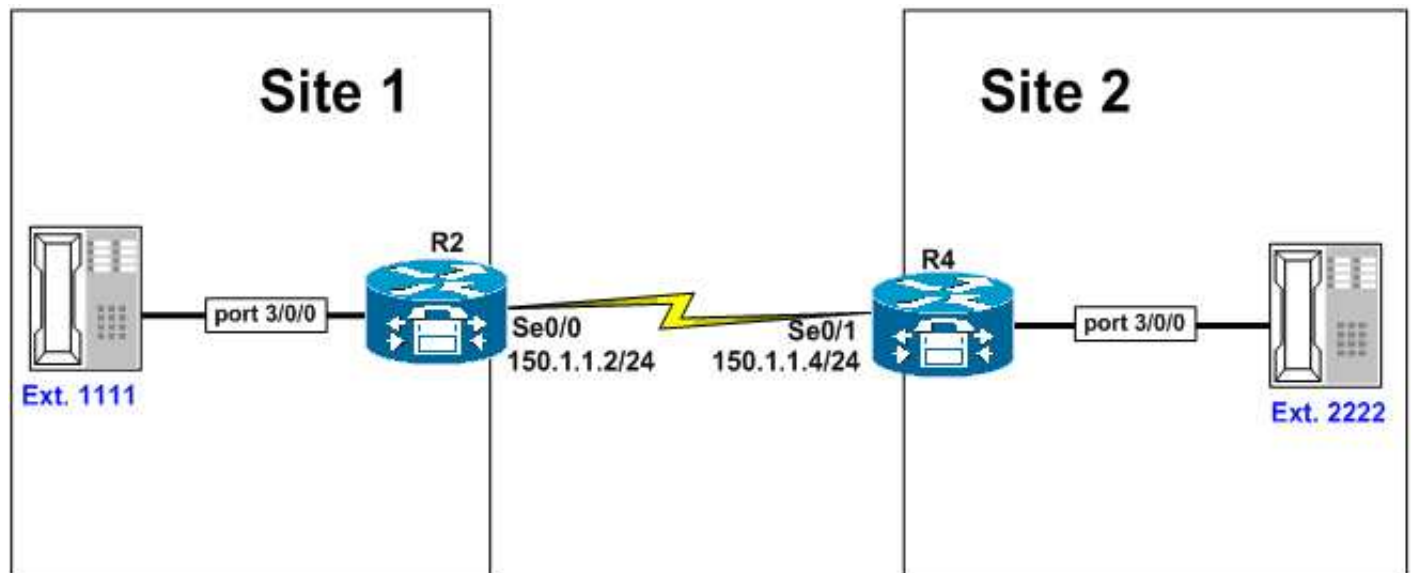
This lab has a difficulty rating of 5/10

Readiness Assessment:

When ready for your exam, you should be able to complete this lab in no more than 15 minutes

Lab Topology:

Please use the following topology to complete this lab exercise:



Lab 11 Configuration Tasks

Task 1:

Configure the hostnames and IP addresses on R2 and R4 as illustrated in the diagram. Configure R4 to provide clocking to R2. Configure the clock rate on R4 as 800Kbps

Task 2:

Configure POTS dial peers for the connected phones on R2 and R4 as illustrated in the diagram. Use any dial peer numbers you want

Task 3:

Configure VoIP dial peers on R2 and R4 for the extensions at either location. Use any dial peer numbers

you want

Task 4:

Configure PLAR on R2 such that when the handset on phone 1111 is lifted a call is automatically placed to extension 2222 on R4

Task 5:

Verify your configuration by picking up the handset on extension 1111 on R2

Lab 11 Configuration and Verification

Task 1:

```
R2(config)#hostname R2
R2(config)#interface Serial0/0
R2(config-if)#description .Connected To R4 Serial 0/1.
R2(config-if)#ip address 150.1.1.2 255.255.255.0
```

```
R4(config)#hostname R4
R4(config)#interface Serial0/1
R4(config-if)#description .Connected To R2 Serial 0/0
R4(config-if)#ip address 150.1.1.4 255.255.255.0
R4(config-if)#clock rate 800000
```

Verify connectivity by performing a simple ping between the two routers

R2#**ping 150.1.1.4**

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 150.1.1.4, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4 ms

R4#**ping 150.1.1.2**

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 150.1.1.2, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/8 ms

Task 2:

```
R2(config)#dial-peer voice 1 pots
R2(config-dial-peer)#destination-pattern 1111
R2(config-dial-peer)#port 3/0/0
R2(config-dial-peer)#exit
```

```
R4(config)#dial-peer voice 1 pots
R4(config-dial-peer)#destination-pattern 2222
R4(config-dial-peer)#port 3/0/0
R4(config-dial-peer)#exit
```

Task 3:

```
R2(config)#dial-peer voice 2 voip
R2(config-dial-peer)#destination-pattern 2222
R2(config-dial-peer)#session target ipv4:150.1.1.4
R2(config-dial-peer)#exit
```

```
R4(config)#dial-peer voice 2 voip
R4(config-dial-peer)#destination-pattern 1111
R4(config-dial-peer)#session target ipv4:150.1.1.2
R4(config-dial-peer)#exit
```

Task 4:

```
R2(config)#voice-port 3/0/0
R2(config-voiceport)#connection plar 2222
R2(config-voiceport)#exit
```

Task 5:

To verify this configuration and PLAR operation, lift up the handset on extension 1111 while debugging the voice Call Control API:

```
R2#debug voice ccapi inout
```

```
voip ccapi inout debugging is on
```

```
R2#
```

```
R2#
```

```
*Mar 1 00:23:15.031: //-1/5B1D1D048005/CCAPI/cc_api_display_ie_subfields:
```

```
cc_api_call_setup_ind_common:
```

```
cisco-username=
```

```
----- ccCallInfo IE subfields -----
```

```
cisco-ani=
```

```
cisco-anitype=0
```

```
cisco-aniplan=0
```

```
cisco-anipi=0
```

```
cisco-anisi=0
```

```
dest=2222
```

```
cisco-desttype=0
```

```
cisco-destplan=0
```

```
cisco-rdie=FFFFFFFF
```

```
cisco-rdn=
```

```
cisco-rdntype=0
```

```
cisco-rdnplan=0
```

```
cisco-rdnpi=0
```

```
cisco-rdnsi=0
```

```
cisco-redirectreason=0
```

```
*Mar 1 00:23:15.035: //-1/5B1D1D048005/CCAPI/cc_api_call_setup_ind_common:
```

```
Interface=0x64AB8DC4, Call Info(
```

```
Calling Number=(TON=Unknown, NPI=Unknown, Screening=Not Screened, Presentation=Allowed),
```

```
Called Number=2222(TON=Unknown, NPI=Unknown),
```

```
Calling Translated=FALSE, Subscriber Type Str=RegularLine, FinalDestinationFlag=TRUE,
```

```
Incoming Dial-peer=1, Progress Indication=ORIGINATING SIDE IS NON ISDN(3), Calling IE
```

```
-[Truncated Output]-
```

In the output above, notice that the calling number is empty but the called number is present. This is because the gateway starts dialing immediately, i.e. as soon as the handset is lifted.

Final Relevant Configuration R2:

```
R2#show running-config
```

```
Building configuration...
```

```
Current configuration : 1476 bytes
```

```
!
```

```
version 12.4
```

```
service timestamps debug datetime msec
```

```
service timestamps log datetime msec
```

```
no service password-encryption
```

```
!
```

```
hostname R2
```

```
!
```

```
!
```

```
!
```

```
!
```

```
interface Serial0/0
```

```
description .Connected To R4 Serial 0/1.
```

```
ip address 150.1.1.2 255.255.255.0
```

```
no fair-queue
```

```
!
```

```

!
!
!
voice-port 3/0/0
 connection plar 2222
!
voice-port 3/0/1
!
voice-port 3/1/0
!
voice-port 3/1/1
!
!
!
!
dial-peer voice 1 pots
 destination-pattern 1111
 port 3/0/0
!
dial-peer voice 2 voip
 destination-pattern 2222
 session target ipv4:150.1.1.4

```

Final Relevant Configuration R4:

R4#**show running-config**

Building configuration...

Current configuration : 1449 bytes

```

!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R4
!
!
!
!
interface Serial0/1
 description .Connected To R2 Serial 0/0
 ip address 150.1.1.4 255.255.255.0
 clock rate 800000
!
!
!
!
voice-port 3/0/0
!
voice-port 3/0/1
!
voice-port 3/1/0
!
voice-port 3/1/1
!
!
!
!
dial-peer voice 1 pots
 destination-pattern 2222
 port 3/0/0
!
dial-peer voice 2 voip
 destination-pattern 1111
 session target ipv4:150.1.1.4

```

session target ip: 192.168.1.12



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